

Patent Abstracts of Japan

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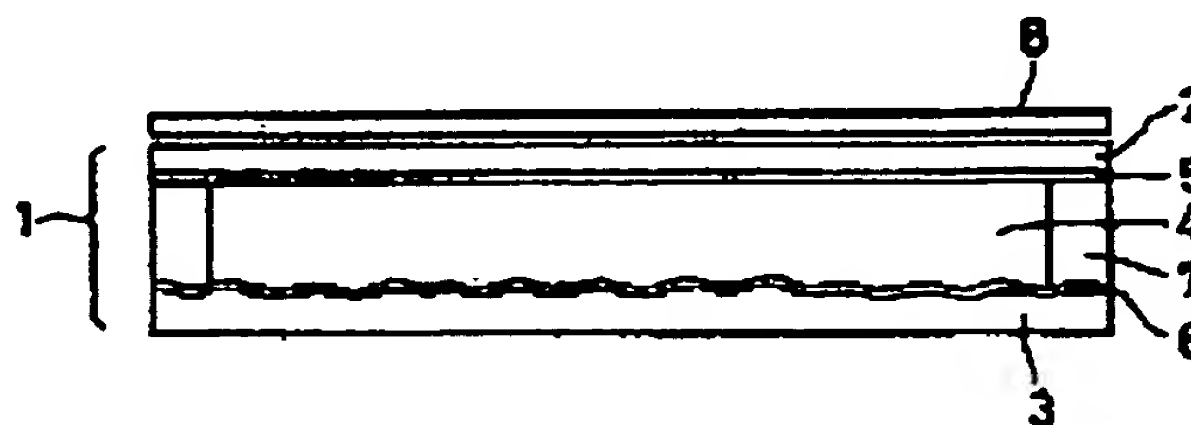
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TITLE : ELECTRO-OPTIC DEVICE AND ITS  
PRODUCTION



ABSTRACT : PROBLEM TO BE SOLVED: To provide a device in which light is well scattered by a reflecting layer and an easily visible display can be obtd. with a large visual field by forming an org. film on a substrate having a rough surface and then forming a reflecting layer on the org. film.

SOLUTION: A transparent electrode 5 such as ITO is formed on the inner surface of an upper substrate 2 facing a liquid crystal layer 4, while a thin metal film 6 as a reflecting layer is formed on the inner surface of the other substrate 3. The surface of the lower substrate 3 facing the liquid crystal layer 4 is finely roughened so that the surface of the metal film 6 is made rough. An inorg. film such as  $\text{SiO}_2$  or an org. film is formed on the surface of the metal film 6 to obtain uniform thickness of the liquid crystal layer 4. The pitches of the roughness are preferably controlled as random and irregular. The average pitch of the roughness is preferably  $\leq 80\mu\text{m}$ , and the roughness height is preferably  $\leq 0.6\mu\text{m}$  considering the orientation of the liquid crystal to be held and concentration of light reflected to the observer side.

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